

WHAT IS CLAIMED IS:

1. A resin intake manifold comprising:

at least two separated bodies in which protrusions of weld portions are connected to each other in accordance with a vibration welding; and

a cover wall in which one of said weld portions is arranged in an inner side or an outer side of said protrusion with leaving space with said protrusion,

wherein said protrusions of the weld portions are respectively provided with parallel protrusion portions extending in parallel to a vibrating direction of the vibration welding,

wherein a cover wall arranged at a position in an orthogonal direction to the vibrating direction in said parallel protrusion portions is provided with an extension portion extending to the separated body in the other side welded to the separated body provided with said cover wall, in such a manner as to prevent a burr generated at a time of welding said parallel protrusion portion from getting over said cover wall arranged at the position in the orthogonal to said vibrating direction in said parallel protrusion portion, and

wherein a recess groove receiving said extension portion is arranged in a side of said other side separated body.

2. A resin intake manifold as claimed in claim 1, wherein the resin intake manifold is provided with a plurality of distribution passages capable of flowing an intake fluid so as

to integrally put base portion sides together and separate leading end portion sides into a plurality of sections,

wherein said two separated bodies are constituted by a cover member forming an outer wall of each of said distribution passages, and a base member welded to said cover member and forming each of said distribution passages together with said cover member,

wherein said cover member is provided with an assembled portion integrally covering the base portion sides of said respective distribution passages, and branch portions arranged so as to extend from said assembled portion to the leading end portion sides of said respective distribution passages and separated from each other in correspondence to the number of said respective distribution passages, and

wherein the vibrating direction at a time of vibration welding is set to a direction extending along the parallel arranging direction of said respective distribution passages, and said parallel protrusion portion and the cover wall provided with said extension portion are arranged at a leading end of each of said branch portions in the cover member.

3. A resin intake manifold as claimed in claim 1, wherein the cover wall provided with said extension portion is arranged in the side of each of said distribution passages in said parallel protrusion portion.

4. A resin intake manifold comprising:  
an intake flow passage of an intake fluid;

a tank chamber communicated with a part of said intake passage and formed by at least three separated first, second and third pieces; and

the resin intake manifold being manufactured by welding at least said first, second and third pieces while pressurizing,

wherein said first and second pieces are structured such as to be welded to each other for forming the flow passage of the intake fluid,

wherein said first piece is provided with a tubular peripheral wall portion commonly using a wall portion forming said intake flow passage and constituting said tank chamber,

wherein said second piece is provided with a ceiling wall portion covering one end portion side of said peripheral wall portion,

wherein said third piece is structured as a cover member closing another end portion side of said peripheral wall portion,

wherein an outer weld collar portion for welded to said second piece is arranged in an outer peripheral edge of said first piece including said peripheral wall portion so as to be formed to protrude to an outer side, and

wherein a portion weld to said third piece in said first piece is provided with an inner weld collar portion protruding to the inner peripheral wall surface of said peripheral wall portion in such a manner as to prevent an interference with a pressurizing jig supporting said outer weld collar portion at a time of welding said first piece and said second piece.

5. A resin intake manifold as claimed in claim 4, wherein the peripheral wall portion of said first piece is formed in a forward tapered shape from said outer weld collar portion to said inner weld collar portion along an axial direction.

6. A resin intake manifold as claimed in claim 4, wherein said intake flow passage formed by said first piece forms a part of the surge tank, and said tank chamber is arranged in a space between said surge tank and a discharge port of said intake flow passage.

7. A resin intake manifold comprising:

a surge tank;

an independent intake passage connected to said surge tank;

and

a plurality of pieces formed in a predetermined shape and welded along a weld line,

wherein a funnel portion is formed in a portion connected from said surge tank to the independent intake passage, the weld line is formed so as to cross over a portion near said funnel portion, a funnel partition wall separating a plurality of independent intake passages is formed in said funnel portion so as to protrude from one piece to another piece, and

wherein a funnel wall receiving portion receiving said funnel partition wall is formed in said another piece, and said funnel partition wall and said funnel wall receiving portion are welded in bonded surfaces.

8. A resin intake manifold as claimed in claim 7, wherein

the funnel partition wall of said funnel portion is formed in an approximately triangular shape such that the corner portion protrudes to another piece side.

9. A resin intake manifold as claimed in claim 7, wherein an approximately V-shaped folded weld line is formed in an edge portion of the funnel partition wall in said funnel portion.